

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A precipitated silica which has the following physical and chemical properties:

CTAB surface area 100-200 m²/g

BET/CTAB ratio 0.8-1.05

DBP value 210-280 g/(100 g)

Sears value V₂ 10-30 ml/(5 g)

Moisture level 4-8%.

Ratio of Sears value V₂ to

BET surface area 0.150 to 0.370 ml/(5m²)

Claim 2 (Currently Amended): The precipitated silica as claimed in claim 1,
~~characterized in that wherein~~ the BET/CTAB ratio is from 0.9 to 1.03.

Claim 3 (Currently Amended): The precipitated silica as claimed in claim 1, ~~or 2,~~
~~characterized in that wherein~~ the Sears value V₂ is from 20 to 30 ml/ (5 g).

Claim 4 (Currently Amended): The precipitated silica as claimed in ~~any of claims 1~~
~~to 3, characterized in that claim 1, wherein~~ the CTAB surface area is from 100 to 160 m² /g.

Claim 5 (Currently Amended): The precipitated silica as claimed in ~~any of claims 1~~
~~to 4, characterized in that claim 1, wherein~~ the DBP value is from 250 to 280 g/(100 g).

Claim 6 (Currently Amended): The precipitated silica as claimed in ~~any of claims 1 to 5, characterized in that claim 1, wherein~~ the BET surface area is 80-110 m²/g.

Claim 7 (Currently Amended): The precipitated silica as claimed in ~~any of claims 1 to 5, characterized in that claim 1, wherein~~ the BET surface area is 110-150 m²/g.

Claim 8 (Currently Amended): The precipitated silica as claimed in ~~any of claims 1 to 7, characterized in that claim 1, wherein~~ the ratio of Sears value V₂ to the BET surface area is from 0.140 to 0.370 ml/(5 m²).

Claim 9 (Currently Amended): A process for preparing a precipitated silicas silica, ~~characterized in that wherein~~

in succession

- a) an aqueous solution of an alkali metal silicate or alkaline earth metal silicate and/or of an organic and/or inorganic base with pH from 7 to 14 is taken as initial charge,
- b) water glass and an acidifier are metered simultaneously into this initial charge at from 55 to 95°C, with stirring, for from 10 to 120 minutes,
- g) stirring of the resultant suspension is continued at from 80 to 98°C, for from 1 to 120 minutes,
- h) an acidifier is used to acidify to pH of from 2.5 to 5, and
- i) the material is filtered and dried.

Claim 10 (Currently Amended): The process as claimed in claim 9, ~~characterized in that wherein~~ after step b) the additional steps of

- c) stopping the feed for from 30 to 90 minutes while maintaining the temperature,
- and
- d) then, where appropriate, simultaneously feeding water glass and an acidifier at the same temperature, with stirring, for from 20 to 120 minutes, preferably from 20 to 80 minutes
- are carried out once or twice.

Claim 11 (Currently Amended): The process as claimed in ~~claims 9 and 10,~~
~~characterized in that claim 9, wherein,~~ following b) or d), in step e) the pH is adjusted to from 3 to 11 by adding an acidifier.

Claim 12 (Currently Amended): The process as claimed in claim 11, ~~characterized in that wherein,~~ following step b) or d), in step e) the pH is adjusted to from 7 to 10 by adding acid.

Claim 13 (Currently Amended): The process as claimed in claim 11, wherein, or 12,
~~characterized in that~~ in an additional step f) the pH is increased to from 8 to 14 by adding a basic compound.

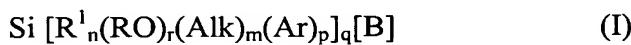
Claim 14 (Currently Amended): The process as claimed in claim 13, ~~characterized in that wherein~~ the base used comprises an alkali metal silicate and/or alkaline earth metal silicate and/or an alkali metal hydroxide and/or an alkaline earth metal hydroxide.

Claim 15 (Currently Amended): The process as claimed in ~~any of claims 9 to 14, characterized in that claim 9, wherein~~ during one of steps a) to h) an organic or inorganic salt is added.

Claim 16 (Currently Amended): The process as claimed in ~~any of claims 9 to 15, characterized in that claim 9, wherein~~ for the drying process use is made of a pneumatic drier, spray drier, disk drier, belt drier, rotating-tube drier, flash drier, spin flash drier, or spray tower.

Claim 17 (Currently Amended): The process as claimed in ~~any of claims 9 to 16, characterized in that claim 9, wherein~~ after the drying process, a roller compactor is used for pelletizing.

Claim 18 (Currently Amended): The precipitated silica claimed in ~~any of claims 1 to 8, or prepared as claimed in any of claims 9 to 17, characterized in that its surfaces have~~ claim 1, wherein the surface of the precipitated silica has been modified with organosilanes of the formulae I to III



or



where

B is -SCN, -SH, -Cl, -NH₂, -OC(O)CHCH₂, -OC(O)C(CH₃)CH₂ (if q = 1), or -S_w- (if q = 2), B being chemically bonded to Alk,

R and R¹ are an aliphatic, olefinic, aromatic, or arylaromatic radical having 2-30 carbon atoms, optionally with substitution by the following groups: the hydroxyl, amino, alcoholate, cyanide, thiocyanide, halo, sulfonic acid, sulfonic ester, thiol, benzoic acid, benzoic ester, carboxylic acid, carboxylic ester, acrylate, methacrylate, or organosilane radical, where the meaning or substitution of R and R¹ may be identical or different,

n is 0, 1, or 2,

Alk is a bivalent unbranched or branched hydrocarbon radical having from 1 to 6 carbon atoms,

m is 0 or 1,

Ar is an aryl radical having from 6 to 12 carbon atoms, preferably 6 carbon atoms, which may have substitution by the following groups: the hydroxyl, amino, alcoholate, cyanide, thiocyanide, halo, sulfonic acid, sulfonic ester, thiol, benzoic acid, benzoic ester, carboxylic acid, carboxylic ester, acrylate, methacrylate or organosilane radical,

p is 0 or 1, with the proviso that p and n are not simultaneously 0,

q is 1 or 2,

x is a number from 2 to 8,

r is 1, 2, or 3, with the proviso that r + n + m + p = 4,

Alkyl is a monovalent unbranched or branched saturated hydrocarbon radical having from 1 to 20 carbon atoms, preferably from 2 to 8 carbon atoms,

Alkenyl is a monovalent unbranched or branched unsaturated hydrocarbon radical having from 2 to 20 carbon atoms, preferably from 2 to 8 carbon atoms.

Claim 19 (Currently Amended): The precipitated silica as claimed in ~~any of claims 1 to 8 or as prepared in any of claims 9 to 17, characterized in that its surfaces have claim 1,~~
wherein the surface of the precipitated silica has been modified with organosilicon compounds whose composition is

$\text{SiR}^2_{4-n}\text{X}_n$ (where $n = 1, 2, 3, 4$),

$[\text{SiR}^2_x\text{X}_y\text{O}]_z$ (where $0 \leq x \leq 2; 0 \leq y \leq 2; 3 \leq z \leq 10$, where $x + y = 2$),

$[\text{SiR}^2_x\text{X}_y\text{N}]_z$ (where $0 \leq x \leq 2; 0 \leq y \leq 2; 3 \leq z \leq 10$, where $x + y = 2$),

$\text{SiR}^2_n\text{X}_m\text{OSiR}^2_o\text{X}_p$ (where $0 \leq n \leq 3; 0 \leq m \leq 3; 0 \leq o \leq 3; 0 \leq p \leq 3$, where $n+m=3$, $o+p=3$),

$\text{SiR}^2_n\text{X}_m\text{NSiR}^2_o\text{X}_p$ (where $0 \leq n \leq 3; 0 \leq m \leq 3; 0 \leq o \leq 3; 0 \leq p \leq 3$, where $n + m = 3$, $o + p = 3$), and/or

$\text{SiR}^2_n\text{X}_m[\text{SiR}^2_x\text{X}_y\text{O}]_z\text{SiR}^2_o\text{X}_p$ (where $0 \leq n \leq 3; 0 \leq m \leq 3; 0 \leq x \leq 2; 0 \leq y \leq 2; 0 \leq o$
 $\leq 3; 0 \leq p \leq 3; 1 \leq z \leq 10000$, where $n + m = 3, x + y = 2, o + p = 3$)

where

R^2 is alkyl and/or aryl radicals, substituted and/or unsubstituted, having from 1 to 20 carbon atoms, and/or is alkoxy, and/or alkenyl, and/or alkynyl groups, and/or is sulfur-containing groups,

X is a silanol, amino, thiol, halogen, alkoxy, alkenyl and/or hydrogen radical.

Claim 20 (Currently Amended): A process for preparing the ~~silicas~~ precipitated silica as claimed in claim 18 or 19, ~~characterized in that~~ wherein the precipitated silicas are modified with organosilanes in mixtures of from 0.5 to 50 parts, based on 100 parts of precipitated silica, in particular from 1 to 15 parts, based on 100 parts of precipitated silica, where the reaction between precipitated silica and organosilane is carried out during the

preparation of the mixture (in situ) or externally via spray application and subsequent heat-conditioning of the mixture, via mixing of the organosilane and the silica suspension with subsequent drying and heat-conditioning.

Claim 21 (Currently Amended): The use of silicas as claimed in ~~any of claims 1 to 20~~ claim 1 in elastomer mixtures, in vulcanizable rubber mixtures, and/or in other vulcanizates, such as pneumatic tires, tire treads, cable sheathing, hoses, drive belts, conveyor belts, V-belts, roller coverings, tires, shoe soles, gaskets, and damping elements.

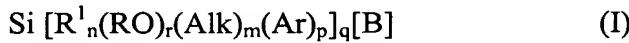
Claim 22 (Currently Amended): The use of silicas as claimed in ~~any of claims 1 to 20~~ claim 1 in battery separators, as antiblocking agent, as matting agent in inks and paints, as carrier for agricultural products and for feeds, in coatings, in printing inks, in fire-extinguisher powders, in plastics, in the non-impact printing sector, in paper pulp, or in the personal care sector.

Claim 23 (Original): A vulcanizable rubber mixture or a vulcanizate comprising, as filler, the precipitated silica as claimed in claim 1, with the following physical and chemical properties:

CTAB surface area	100-200 m ² /g
BET/CTAB ratio	0.8-1.05
DBP value	210-280 g/(100 g)
Sears value V ₂	10-30 ml/(5 g)
Ratio of Sears value V ₂ to	
BET surface area	0.150 to 0.370 ml/(5m ²)
Moisture level	4-8%.

Claim 24 (New): A precipitated silica produced by the process as claimed in claim 9.

Claim 25 (New): A precipitated silica as claimed in claim 23, wherein the surface of the precipitated silica has been modified with organosilanes of the formulae I to III



or



where

B is -SCN, -SH, -Cl, -NH₂, -OC(O)CHCH₂, -OC(O)C(CH₃)CH₂ (if q = 1), or -S_w- (if q = 2), B being chemically bonded to Alk,
R and R¹ are an aliphatic, olefinic, aromatic, or arylaromatic radical having 2-30 carbon atoms, optionally with substitution by the following groups: the hydroxyl, amino, alcoholate, cyanide, thiocyanide, halo, sulfonic acid, sulfonic ester, thiol, benzoic acid, benzoic ester, carboxylic acid, carboxylic ester, acrylate, methacrylate, or organosilane radical, where the meaning or substitution of R and R¹ may be identical or different,

n is 0, 1, or 2,

Alk is a bivalent unbranched or branched hydrocarbon radical having from 1 to 6 carbon atoms,

m is 0 or 1,

Ar is an aryl radical having from 6 to 12 carbon atoms, preferably 6 carbon atoms, which may have substitution by the following groups: the hydroxyl, amino, alcoholate, cyanide, thiocyanide, halo, sulfonic

acid, sulfonic ester, thiol, benzoic acid, benzoic ester, carboxylic acid,
 carboxylic ester, acrylate, methacrylate or organosilane radical,
 p is 0 or 1, with the proviso that p and n are not simultaneously 0,
 q is 1 or 2,
 x is a number from 2 to 8,
 r is 1, 2, or 3, with the proviso that $r + n + m + p = 4$,
 Alkyl is a monovalent unbranched or branched saturated hydrocarbon radical
 having from 1 to 20 carbon atoms, preferably from 2 to 8 carbon
 atoms,
 Alkenyl is a monovalent unbranched or branched unsaturated hydrocarbon
 radical having from 2 to 20 carbon atoms, preferably from 2 to 8 carbon atoms.

Claim 26 (New): A precipitated silica as claimed in claim 23, wherein the surface of
 the precipitated silica has been modified with organosilicon compounds whose composition
 is

$\text{SiR}^2_{4-n}X_n$ (where $n = 1, 2, 3, 4$),

$[\text{SiR}^2_xX_yO]_z$ (where $0 \leq x \leq 2; 0 \leq y \leq 2; 3 \leq z \leq 10$, where $x + y = 2$),

$[\text{SiR}^2_xX_yN]_z$ (where $0 \leq x \leq 2; 0 \leq y \leq 2; 3 \leq z \leq 10$, where $x + y = 2$),

$\text{SiR}^2_nX_mOSiR^2_oX_p$ (where $0 \leq n \leq 3; 0 \leq m \leq 3; 0 \leq o \leq 3; 0 \leq p \leq 3$, where $n+m=3$,
 $o+p=3$),

$\text{SiR}^2_nX_mNSiR^2_oX_p$ (where $0 \leq n \leq 3; 0 \leq m \leq 3; 0 \leq o \leq 3; 0 \leq p \leq 3$, where $n + m = 3$,
 $o + p = 3$), and/or

$\text{SiR}^2_nX_m[\text{SiR}^2_xX_yO]_zSiR^2_oX_p$ (where $0 \leq n \leq 3; 0 \leq m \leq 3; 0 \leq x \leq 2; 0 \leq y \leq 2; 0 \leq o \leq 3; 0 \leq p \leq 3; 1 \leq z \leq 10000$, where $n + m = 3, x + y = 2, o + p = 3$)

where

R^2 is alkyl and/or aryl radicals, substituted and/or unsubstituted, having from 1 to 20 carbon atoms, and/or is alkoxy, and/or alkenyl, and/or alkynyl groups, and/or is sulfur-containing groups,

X is a silanol, amino, thiol, halogen, alkoxy, alkenyl and/or hydrogen radical.

Claim 27 (New): A process for preparing the precipitated silica as claimed in claim 19, wherein the precipitated silicas are modified with organosilanes in mixtures of from 0.5 to 50 parts, based on 100 parts of precipitated silica, in particular from 1 to 15 parts, based on 100 parts of precipitated silica, where the reaction between precipitated silica and organosilane is carried out during the preparation of the mixture (in situ) or externally via spray application and subsequent heat-conditioning of the mixture, via mixing of the organosilane and the silica suspension with subsequent drying and heat-conditioning.

Claim 28 (New): An article comprising the precipitated silica as claimed in claim 1 wherein said article is an elastomer mixture, a vulcanizable rubber mixture, a pneumatic tire, a tire tread, cable sheathing, a hose, a drive belt, a conveyor belt, a V-belt, a roller covering, a tire, a shoe sole, a gasket and a damping element.

Claim 29 (New): A method for producing the article as claimed in claim 27 comprising adding the precipitated silica to the article during the manufacture of the article.

Claim 30 (New): A composition comprising the precipitated silica as claimed in claim 1 wherein the composition is a battery separator, an antiblocking agent, a matting agent in inks and paints, a carrier for agricultural products and feeds, a coating, a printing ink, a fire

extinguisher power, a plastic, a non-impact printing product, a paper pulp product or a personal care product.

Claim 31 (New): A method for producing the composition as claimed in claim 30 comprising adding the precipitated silica to the composition during the manufacture of the composition.